

Practice

Sum and Product of Roots

Solve each equation. Then find the sum and the product of the roots to check your solutions.

1. $x^2 - 7x + 4 = 0$

2. $x^2 + 3x + 6 = 0$

3. $2n^2 + 5n + 6 = 0$

4. $7x^2 - 5x = 0$

5. $4r^2 - 9 = 0$

6. $-5x^2 - x + 4 = 0$

7. $3x^2 + 8x = 3$

8. $\frac{2}{3}x^2 - \frac{1}{2}x - 1 = 0$

Write a quadratic equation that has the given roots.

9. 7, -3

10. $4, \frac{1}{3}$

11. $-\frac{2}{3}, -\frac{4}{5}$

12. $-2\sqrt{5}, 4\sqrt{5}$

13. $3 - \sqrt{6}, 3 + \sqrt{6}$

14. $7 - 2i, 7 + 2i$

15. $7i, -7i$

16. $\frac{2 + \sqrt{10}}{5}, \frac{2 - \sqrt{10}}{5}$

17. $2 + i\sqrt{11}, 2 - i\sqrt{11}$

18. $\frac{1 + 6i}{4}, \frac{1 - 6i}{4}$

Find k such that the number given is a root of the equation.

19. 7; $2x^2 + kx - 21 = 0$

20. -2; $x^2 - 13x + k = 0$